

**Software Documentation / Sequence Programmer RS232**

# Software Documentation

## Sequence Programmer RS232

**190118**

Version: 17.05.2023 TDU



### General

The *Sequence Programmer RS232* is used to program a KannMOTION Device (KMD) communicating with RS232 or RS232/TTL with sequences which are created beforehand with the *KannMOTION Manager*.

The *Sequence Programmer RS232* can be used with the GUI or over command line.

### Programs/Installation

Sequence Programmer RS232



<https://kannmotion.li/download/sequenceprogrammer/SequenceProgrammerRS232.zip>

For more information and applications, please visit <https://www.kannmotion.com/downloads/>

### History

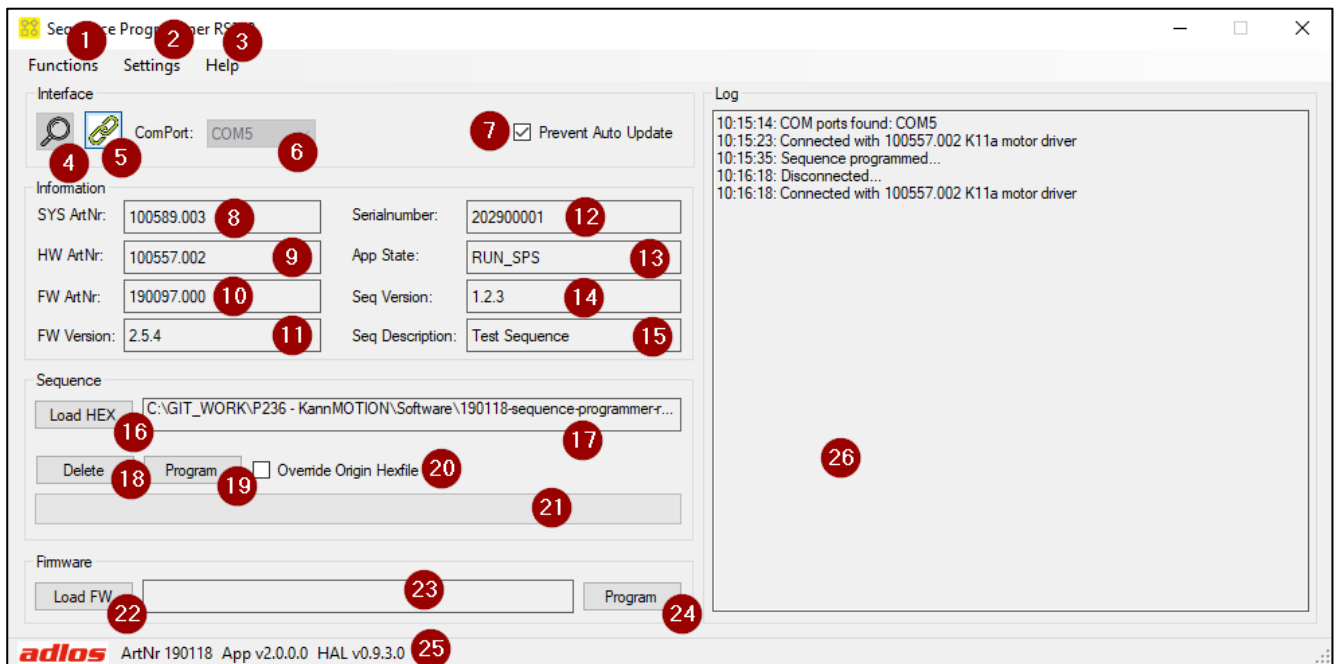
Version	Date	Description
A	17.05.2023	1. Version

### Information

	App works only with RS232 and RS232/TTL devices.
	This application works with the same COM XMLs as the KannMOTION Manager. Means, if KMM updates the COM XML, they will be updated for this application too.

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### How to use with GUI



1. Functions
  - a. Search Devices (as (4))
  - b. Clear Log
2. Settings
  - a. Prevent Download (as (7))
  - b. Override Origin Hexfile (as (20))
3. Help
  - a. Software Documentation
  - b. KannMOTION Website
4. Search RS232 COM ports
5. Connect device defined in (6)
6. Select preferred COM port
7. Check to prevent auto update of COM XMLs
8. Displays the system article number (Drive)
9. Displays the hardware article number (Controller)
10. Displays the firmware article number
11. Displays the firmware version
12. Displays the serial number
13. Displays app state of devices
14. Displays sequence version if one is programmed
15. Displays sequence description if one is programmed
16. Load path of hex file of sequence
17. Path to hex file
18. Delete sequence from device
19. Program hex file of sequence to device
20. Either override origin hexfile when programming or not  
Should NOT be set for production programming! Checked for developing.

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21. Progress bar
22. Load path of kfw file of firmware
23. Path to kfw file of firmware
24. Program kfw file to device
25. Information about the application
26. Log messages, right click to clear log

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### How to use with command line

Alternatively, the program can be called over the command line or from another application. For this there are several possibilities to call the application and get the **Return Code**:

1. Calling application over Batch-File **SequenceProgrammerRS232.bat**, ReturnCode is returned when finished
2. Calling **SequenceProgrammerRS232.exe** from another app, you can get the ReturnCode with calling *process.ExitCode* (or similar) after the application has closed/finished

	<b>Param 2 (Prevent Update)</b> tells if the device information XML should be loaded/updated. <b>0:</b> Device information XML are loaded/updated <b>1:</b> Device information XML are NOT loaded/updated Needs to be <b>0</b> (NOT prevent update) if a device wants to be connected for the first time.
	The Batch-File must be in the application folder, because it depends on the applications EXE-File which is in the same folder!


### Delete a sequence

Call	Param 1 <i>Command</i>	Param 2 <i>Prevent Update</i>	Param 3 <i>Port</i>	Param 4 <i>HEX-file path</i>
SequenceProgrammerRS232.exe/bat	0	0	COMx	-

Example:

```
SequenceProgrammerRS232.exe 0 0 COM7
```

### Program a sequence

	<b>Command 1:</b> programs the sequence from hex file as is. <b>Use this for production!</b> <b>Command 5:</b> calculates checksum, programs the sequence, and then overrides the origin hexfile with programmed data. Used for developing.
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Call	Param 1 <i>Command</i>	Param 2 <i>Prevent Update</i>	Param 3 <i>Port</i>	Param 4 <i>HEX-file path</i>
SequenceProgrammerRS232.exe/bat	1	0	COMx	C:\path\to\file.hex
SequenceProgrammerRS232.exe/bat	5	0	COMx	C:\path\to\file.hex

Example:

```
SequenceProgrammerRS232.exe 1 0 COM7
"C:\Users\MyUser\AppData\Local\Adlos\KannMOTION\GCC\SPS_Sequence.hex"
```

```
SequenceProgrammerRS232.exe 5 0 COM7
"C:\Users\MyUser\AppData\Local\Adlos\KannMOTION\GCC\SPS_Sequence.hex"
```

### Read version and description of a sequence

Call	Param 1 <i>Command</i>	Param 2 <i>Prevent Update</i>	Param 3 <i>Port</i>	Param 4 <i>HEX-file path</i>
SequenceProgrammerRS232.exe/bat	2	0	COMx	-

Example:

```
SequenceProgrammerRS232.exe 2 0 COM7
```

If there is a sequence on the KM-Device, with this call the version and description of the sequence is readout and written into a file, which can be found under the following file path.

```
C:\Users\<user>\Documents\adlos\SequenceProgrammerRS232\SequenceInfo.txt
```

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In there the first line is the version, second line the description.



If there is no sequence available on the KM-Device, the program ends with return code -2 (file not found).

### Update Firmware

Call	Param 1 <i>Command</i>	Param 2 <i>Prevent Update</i>	Param 3 <i>Port</i>	Param 4 <i>KFW file path</i>
SequenceProgrammerRS232.exe/bat	4	0	COMx	C:\path\to\fw.kfw

Example:

```
SequenceProgrammerRS232.exe 4 0 COM7 "C:\path\to\fw.kfw"
```

Update the firmware with given kfw file.

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### Return Codes

After the program is finished, a code is returned. Following codes are available:

Error Code	Description	Comment
0	No error	
-1	Unknown error	
-2	File not found	Maybe COM Xml file missing, due to <i>Prevent Download</i>
-5	Unreachable port	COM port not found
-6	Invalid arguments	One or multiple parameters are incorrect
-7	Communication error	Communication Timeout Exception happened
-8	No access to COM-port	No connection with device could be established
-9	Corrupted/Invalid file	Maybe wrong file format
-20	Programming failed	
-21	Deleting failed	
-22	Verifying failed	